13. (Amended) A process for producing the polypeptide described in claims 1 or 2, which comprises culturing a transformant harboring a recombinant DNA prepared by integrating DNA coding for the polypeptide into a vector in a medium to thereby form and accumulate said polypeptide in the culture, and collecting said polypeptide from said culture.

a21

14. (Amended) A process for producing the polypeptide described in claims 1 or 2, which comprises breeding a non-human transgenic animal harboring a recombinant DNA prepared by integrating DNA coding for the polypeptide into a vector to thereby form and accumulate said polypeptide in said animal, and collecting.

16. (Amended) A process for producing the polypeptide described in claims 1 or 2, which comprises culturing a transgenic plant harboring a recombinant DNA prepared by integrating DNA coding for the polypeptide into a vector to thereby form and accumulate said polypeptide in said plant, and collecting said polypeptide from said plant.

a22

17. (Amended) A process for producing the polypeptide described in claims 1 or 2, which comprises synthesizing the polypeptide in an <u>in vitro</u> transcription-translation system using DNA coding for said polypeptide.

18. (Amended) A process for producing a reaction product having galactose, which comprises using a polypeptide having β1,3- galactosyltransferase activity

involved in the synthesis of sialyl-Lewis a sugar chain, present in colon cancer cells expressing sialyl-Lewis a sugar chain, or a polypeptide which is selected from the group consisting of:

(a) a polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1,

(b) a polypeptide containing the amino acid sequence of 31 to 310 in the amino acid sequence represented by SEQ ID NO: 1, and

(c) a polypeptide consisting of an amino acid sequence where in the amino acid sequence of the polypeptide (a) or (b), one or more amino acids have been deleted, replaced or added and having β1,3-galactosyltransferase activity capable of synthesizing Galβ1-3GlcNAc structure as an enzyme source, and allowing

a22 cont.

(a) said enzyme source,

(b) an acceptor substrate selected from the group consisting of:

i) N-acetylglucosamine (GlcNAc),

ii) an oligosaccharide having N-acetylglucosamine residue at the non-reducing terminus thereof, and

iii) a complex carbohydrate having N-acetylglucosamine residue at the non-reducing terminus thereof, and

(c) uridine-5'-diphosphate galactose to be present in an aqueous medium to thereby form and accumulate said reaction product in the aqueous medium, and collecting said reaction product from said aqueous medium, wherein the galactose is transferred via

β1,3-linkage to N-acetylglucosamine or N-acetylglucosamine residue of said acceptor substrate.

19. (Amended) A process for producing a reaction product having galactose, which comprises using a polypeptide having β1,3- galactosyltransferase activity involved in the synthesis of sialyl-Lewis a sugar chain, present in colon cancer cells expressing sialyl-Lewis a sugar chain, or a polypeptide which is selected from the group consisting of:

(a) a polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1,

a22 cont.

(b) a polypeptide containing the amino acid sequence of 31 to 310 in the amino acid sequence represented by SEQ ID NO: 1, and

(c) a polypeptide consisting of an amino acid sequence where in the amino acid sequence of the polypeptide (a) or (b), one or more amino acids have been deleted, replaced or added and having β1,3-galactosyltransferase activity capable of synthesizing Galβ1-3GlcNAc structure as an enzyme source, and allowing

(a) said enzyme source,

(b) an acceptor substrate selected from the group consisting of:

i) glucose,

ii) an oligosaccharide having glucose residue at the non-reducing terminus thereof, and

iii) a complex carbohydrate having glucose residue at the non-reducing terminus thereof, and

a22 cont.

(c) uridine-5'-diphosphate galactose to be present in an aqueous medium to thereby form and accumulate said reaction product in the aqueous medium, and collecting said reaction product from said aqueous medium, wherein the galactose is transferred via β1,3-linkage to glucose or glucose residue of said acceptor substrate.

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a23

23. (Amended) A process according to any of claims 18 to 20 wherein the complex carbohydrate is a complex carbohydrate selected from the group consisting of a glycoprotein, a glycolipid, a proteoglycan, a glycopeptide, a lipopolysaccharide, a peptidoglycan and a glycoside which is a steroid compound with a sugar chain.

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a24

25. (Amended) A method for determining the expression level of a gene encoding the polypeptide of claims 1 or 2, which comprises hybridization using DNA coding for said polypeptide or a fragment of said DNA.

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a25

29. (Amended) A method for determining the expression level of a gene encoding a polypeptide having β1,3- galactosyltransferase activity involved in the synthesis of sialyl-Lewis a sugar chain, present in colon cancer cells expressing sialyl-Lewis a sugar chain, or a polypeptide which is selected from the group consisting of:

(a) a polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1,

(b) a polypeptide containing the amino acid sequence of 31 to 310 in the amino acid sequence represented by SEQ ID NO: 1, and

(c) a polypeptide consisting of an amino acid sequence where in the amino acid sequence of the polypeptide (a) or (b), one or more amino acids have been deleted, replaced or added and having β1,3-galactosyltransferase activity capable of synthesizing Galβ1-3GlcNAc structure, which comprises polymerase chain reaction using the DNA of claim 26.

30. (Amended) A method for detecting cancers and cancer metastasis, which comprises using the method of claim 29.

a25 cont.

31. (Amended) A method for inhibiting transcription of DNA coding a polypeptide having β1,3- galactosyltransferase activity involved in the synthesis of sialyl-Lewis a sugar chain, present in colon cancer cells expressing sialyl-Lewis a sugar chain, or a polypeptide which is selected from the group consisting of:

(a) a polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1,

(b) a polypeptide containing the amino acid sequence of 31 to 310 in the amino acid sequence represented by SEQ ID NO: 1, and

(c) a polypeptide consisting of an amino acid sequence where in the amino acid sequence of the polypeptide (a) or (b), one or more amino acids have been deleted, replaced or added and having β1,3-galactosyltransferase activity capable of synthesizing

Galβ1-3GlcNAc structure or translation of its corresponding mRNA, which comprises using a DNA of claim 26 and or a DNA having a nucleotide sequence represented by SEQ ID NO: 2 or 3.

32. (Amended) An antibody recognizing the polypeptide of claims 1 or 2.

33. (Amended) A method for immunological detection of a polypeptide having β1,3- galactosyltransferase activity involved in the synthesis of sialyl-Lewis a sugar chain, present in colon cancer cells expressing sialyl-Lewis a sugar chain, or a polypeptide which is selected from the group consisting of:

(a) a polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1,

(b) a polypeptide containing the amino acid sequence of 31 to 310 in the amino acid sequence represented by SEQ ID NO: 1, and

(c) a polypeptide consisting of an amino acid sequence where in the amino acid sequence of the polypeptide (a) or (b), one or more amino acids have been deleted, replaced or added and having β1,3-galactosyltransferase activity capable of synthesizing Galβ1-3GlcNAc structure, which comprises using the antibody of claim 32.

34. (Amended) An immunohistostaining method, which comprises detecting a polypeptide of having β1,3- galactosyltransferase activity involved in the

synthesis of sialyl-Lewis a sugar chain, present in colon cancer cells expressing sialyl-Lewis a sugar chain, or a polypeptide which is selected from the group consisting of:

(a) a polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1,

a25 cont.

(b) a polypeptide containing the amino acid sequence of 31 to 310 in the amino acid sequence represented by SEQ ID NO: 1, and

(c) a polypeptide consisting of an amino acid sequence where in the amino acid sequence of the polypeptide (a) or (b), one or more amino acids have been deleted, replaced or added and having β1,3-galactosyltransferase activity capable of synthesizing Galβ1-3GlcNAc structure by using the antibody of claim 32.

37. (Amended) A method for screening a compound varying the activity of the polypeptide of claims 1 or 2, which comprises contacting said polypeptide with a test sample.

a26

38. (Amended) A method for screening a compound varying the expression of a gene coding for the polypeptide of claims 1 or 2, which comprises contacting cells expressing said polypeptide with a test sample and determining the content of sialyl-Lewis a sugar chain, Lewis a sugar chain, Lewis b sugar chain or sialyl-Lewis c sugar chain by use of anti-sialyl-Lewis a antibody, anti-Lewis a antibody, anti-Lewis b antibody or anti-sialyl-Lewis c antibody.

39. (Amended) A method for screening a compound varying the expression of a gene coding for a polypeptide having β1,3- galactosyltransferase activity involved in the synthesis of sialyl-Lewis a sugar chain, present in colon cancer cells expressing sialyl-Lewis a sugar chain, or a polypeptide which is selected from the group consisting of:

(a) a polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1,

(b) a polypeptide containing the amino acid sequence of 31 to 310 in the amino acid sequence represented by SEQ ID NO: 1, and

(c) a polypeptide consisting of an amino acid sequence where in the amino acid sequence of the polypeptide (a) or (b), one or more amino acids have been deleted, replaced or added and having β1,3-galactosyltransferase activity capable of synthesizing Galβ1-3GlcNAc structure, which comprises contacting cells expressing said polypeptide with a test sample and determining the content of said polypeptide by use of the antibody of claim 32.

40. (Amended) A promoter DNA governing transcription of a gene coding for a polypeptide having β1,3- galactosyltransferase activity involved in the synthesis of sialyl-Lewis a sugar chain, present in colon cancer cells expressing sialyl-Lewis a sugar chain, or a polypeptide which is selected from the group consisting of:

(a) a polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1,

(b) a polypeptide containing the amino acid sequence of 31 to 310 in the amino acid sequence represented by SEQ ID NO: 1, and

(c) a polypeptide consisting of an amino acid sequence where in the amino acid sequence of the polypeptide (a) or (b), one or more amino acids have been deleted, replaced or added and having β1,3-galactosyltransferase activity capable of synthesizing Galβ1-3GlcNAc structure.

42. (Amended) A promoter DNA according to claim 41, which is a human- or mouse-derived promoter DNA.

43. (Amended) A promoter DNA according to claims 40 or 41, which comprises a 50- to 5000-bp consecutive nucleotide DNA sequence in the nucleotide sequence of 1 to 5000 in the nucleotide sequence represented by SEQ ID NO: 3.

44. (Amended) A method for screening a compound varying the efficiency of transcription by the promoter DNA of claims 40 or 41, which comprises transforming animal cells with a plasmid containing said promoter DNA and a reporter gene ligated downstream of said promoter DNA, then contacting the transformant with a test sample, and determining the content of a translation product of said reporter gene.

46. (Amended) A knockout non-human animal wherein a DNA coding for the polypeptide of claims 1 or 2 is rendered defective or mutated.